

Appendix A



An Information Portal to Biological Macromolecular
As of Tuesday Sep 02, 2008 there are 52821 Structures

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Help Structure Summary Biology & Chemistry Materials & Methods Sequence Details Geometry

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1gfs

DOI 10.2210/pdb1gfs/pdb

Not-Related Information

Title GDP-FUCOSE SYNTHETASE FROM E. COLI

Authors Somers, W.S., Stahl, M.L., Sullivan, F.X.

Primary Citation

Somers, W.S., Stahl, M.L., Sullivan, F.X. (1998) GDP-fucose synthetase from *Escherichia coli*: structure of a unique member of the short-chain dehydrogenase/reductase family that catalyzes two distinct reactions at the same active site. *Structure* 6: 1601-1612

[Abstract]

History Deposition 1998-08-17 Release 1999-06-17

Experimental Method

Type X-RAY DIFFRACTION Data N/A

Parameters

Resolution [Å]	R-Value	R-free	Space Group
2.20	0.171 (obs.)	0.214	P 3 ₁ 2 1

Unit Cell

Length [Å]	a	b	c
104.20	104.20	104.20	74.90
Angles [°]	alpha	beta	gamma
90.00	90.00	90.00	120.00

View the 3D structure

click on one of the
viewers under the image.

Molecular Description
Asymmetric Unit

Polymer 1 Molecule GDP-FUCOSE SYNTHETASE Chains A

Classification Oxidoreductase

Source

Polymer 1 Scientific Name *Escherichia coli* Expression system *Escherichia coli*

SCOP Classification
(version 1.75)

Domain Info	Class	fold	Superfamily	Family	Domain	Species
alpha_	Alpha and beta proteins (alpha)	NAD(P) binding Rossmann-fold domains	NAD(P) binding Rossmann-fold domains	Tyrosine dependent oxidoreductases	GDP-4-epin-6 deoxy d-mannose epimerase/reductase (GDP-fucose synthetase)	<i>Escherichia coli</i>

CATH Classification
(version 3.1.0)

Domain	Class	Architecture	Topology	Homology
1gfsA01	Alpha Beta	3-Layer (alpha) Sandwich	Rossmann fold	NAD(P) and Rossmann-like
1gfsA02	Alpha Beta	Alpha-Beta Complex	UDP-galactose 4-epimerase, domain 1	UDP-galactose epimerase, U

PFAM Classification

Chain	PFAM Accession	PFAM ID	Description	Type	Gln ID
A	PF01370	Epimerase	NAD dependent epimerase/dehydratase family	Family	NADP_Rossm

GO Terms

Polymer	Molecular Function	Biological Process	Cellular Component
GDP-FUCOSE SYNTHETASE (1GFS.A)	<ul style="list-style-type: none"> catalytic activity coenzyme binding 	<ul style="list-style-type: none"> cellular metabolic process 	<ul style="list-style-type: none"> none

RCSB P